Knowledge, Attitudes and Practices of Outpatients on Topical Corticosteroid Use in A Tertiary Hospital: A Pilot Study*

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ABSTRACT

Background. Topical corticosteroids (TCs) form the mainstay of treatment for many skin conditions hence they are the most commonly prescribed drugs by dermatologists and primary care physicians especially in an outpatient setting.[1,2]

Objectives. While long term side effects of topical corticosteroids have been studied, this study aims to assess the current knowledge, attitudes, and practices of Dermatology patients on TC use.

Methods. This is a descriptive, prospective study that made use of researcher-made questionnaires with 17 questions composed of 3 parts to assess the knowledge, attitudes and practices of the participants. Conducted in Dermatology clinic at a tertiary hospital over a period of 2 months. It utilized purposive sampling technique consisting of newly registered patients with a history of topical corticosteroid application.

Results. Out of 52 patients, 50 completed the questionnaires with a 96% response rate. All 50 participants applied topical corticosteroid prior to consultation with ketoconazole + clobetasol propionate cream (n=36) being the most common and 84% are not aware of its corticosteroid content. Our data showed that 30% of the participants believe that TCs have no side effects.

Conclusions. This is the first study that has used a validated researcher-made questionnaires to explore the knowledge, attitudes and practices of patients on topical corticosteroids use at the dermatology clinic in a tertiary hospital. The results of this study correlates with the previous studies in terms of poor knowledge, attitude and practices of patients regarding topical corticosteroids. Trained and Board-certified Dermatologists would help to control misuse of topical medications among patients.

Keywords: corticosteroids, dermatologists, nonprescription drugs, topical administration, self medication

INTRODUCTION

Topical corticosteroids (TCs) form the mainstay of treatment for many skin conditions hence they are the most commonly prescribed drugs by dermatologists and primary care physicians especially in an outpatient setting.[1,2] These drugs are generally safe and effective and side effects are rare when used appropriately. Currently available TCs differ widely, and knowledge of such differences is fundamental for proper prescribing practices. It is important to consider the indication, patient's age, potency, frequency, duration, vehicle, site of lesion, severity of disease, and associated adverse effects whenever prescribing topical corticosteroid.[3]

In the Philippines, TCs are easily available as over-the-counter drugs. Unfortunately, these topical drugs are increasingly being abused and misused by patients due to its availability, affordability and immediate effects.[4,5] Unreasonable prescription of TCs can result in unwanted effects.[6] Topical corticosteroids can cause cutaneous side effects such as atrophy, striae, telangiectasia, hypopigmentation, acne, rosacea, perioral dermatitis, and hypertrichosis, as well as systemic side effects like cataracts, hyperglycemia, and hypothalamic-pituitary-adrenal suppression.[7]

While long term side effects of topical corticosteroids have been studied, the knowledge, attitudes and practices of dermatology outpatients particularly in a tertiary hospital in Pangasinan has not been identified. This study aims to assess the current knowledge, attitudes, and practices of dermatology outpatients of a tertiary hospital. Such data would encourage the improvement of continuing medical education (CME) programs on dermatological therapies and health teaching to patients to ensure their safety.

Significance

The responsibility to educate patients the proper knowledge, attitudes and practices regarding the use of topical steroids lies primarily with healthcare professionals.[3,7,8] Previous studies have highlighted the severity of topical steroid abuse and its side effects such as atrophy, striae, telangiectasia, hypo and

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hyperpigmentation, acne, rosacea, perioral dermatitis, and hypertrichosis.[5,7] Although these side effects were already proven, still, many patients self-medicate with over-the-counter topicals.

Since only few tertiary government hospital caters to patients in Pangasinan and nearby provinces where patients frequently self-medicate, it is essential for primary care physicians and dermatologists to be information-wise in educating them regarding proper application of topical corticosteroids and their side effects thus preventing self-medication.

The results of this study will benefit not just the patients and clinicians but also the institution because the data gathered will improve the quality of care rendered not just by Dermatologists but Non Dermatologists as well.

Definition of Terms

Knowledge – defined as the patient's perception on topical corticosteroids through experience with application

Attitudes – defined as the patient's awareness and understanding on how topical medications work

Practices – defined as the patient's preferences on the site of application and how to apply topical medications

Corticosteroids – defined in this study as a topical medication containing steroids to reduce inflammation and irritation in cream, ointment or lotion form applied directly to the skin

Objectives

This study aims to assess the knowledge, attitudes and practices among dermatology outpatients on topical corticosteroids use.

Assessment of Knowledge

1. To identify some of the most commonly used topical steroids based on age, gender, educational status and occupation
2. To identify their main source of the topical steroids used (healthcare professionals including physicians, nurses and pharmacists; social media; websites; family; friends)
3. To identify their knowledge on what tocpical corticosteroids are used for
4. To evaluate their knowledge on the health hazards of topical corticosteroids
5. To assess their knowledge on how long topical steroids should be applied
6. To know how often should they apply these topicals

Assessment of Attitude

1. To identify their reasons for using topical steroids
2. To know their perception on topical steroid safety
3. To find out their discernment on the efficacy of topical steroid application
4. To know the effects of topical steroid observed on the applied site

Assessment of Practice

1. To evaluate their persistence to seek professional consults
2. To know the subjects' areas of topical steroid application
3. To identify their dosing schedule compliance
4. To know if the subjects are applying any emollients during application of topical steroids
5. To know the amount of topicals the subject applied

REVIEW OF RELATED LITERATURE

Application of self-medicated topical corticosteroids (TC) is an increasing problem encountered by dermatologists and primary care physicians.[3,7] The exact magnitude of the problem is not clear, but there have been recent efforts to quantify the practices among patients.

A multi-center trial from India by Saraswat et al., which screened 2926 patients with facial dermatosis, showed that 433 (14.8%) patients were using TCs over a long period in an unsupervised manner.[4] In this study, TC was being used for various purposes, including fairness/general purpose cream, after shave, and acne.[4] Of note, was the fact that non-physician recommendations for TC were obtained in 257 (59.3%) of the patients, of which more than 90% were for potent/super-potent steroids.[4]

A study conducted by Dr. TS Nagesh in India showed that TCs were prescribed by general practitioners in 302 (49.5%) patients. Friends had suggested these medicines in 191 (31.2%) patients, followed by pharmacists in 71 (11.6%) patients. Others like family members had given the creams in 39 (6.3%) patients. General practitioners are often the first point of contact for most of the patients. Educating the patients regarding steroid abuse would help in reducing the incidence of topical steroid-related side effects.[8]

One study done by Soniya et al (2017) pointed out that majority of their subjects used single agent and Clobetasol propionate 0.05% was the most commonly (164/370; 44.32) abused TC in contrast to some other studies such as Rathod PR, Shankar R, and Sawant's study entitled Clinical study of topical corticosteroids misuse in

which betamethasone valerate 0.1% was the main TC abused.[1]

TCs are frequently misused as fairness creams due to their potent bleaching action and as an anti-inflammatory agent in different dermatoses according to the study done by Soniya Meena et al (2015).[1] Fungal infection in 194 (52.43%) patients was the main reason for using TCs. Other reasons include acne 95 (25.68%), melasma 43 (11.62%), achieving fairness in 31 (8.38%) patients. Furthermore, majority of patients used TC as per advice of pharmacist (129; 34.83%) and only a few patients were TC advised by dermatologists (18/370; 4.87%).[1]

The common side effects found in the study done by Nagesh et al (2016) were acne, pigmentation, redness, itching, burning sensation, striae, and aggravation of existing skin problem. It has also been noted that many of their subjects were not aware of the fact that the problems they were facing were due to the long-term use of steroids.[8]

Locally, there is one case report regarding application of topical corticosteroid entitled "A fatal case of staphylococcal scalded skin syndrome associated with iatrogenic Cushing syndrome due to potent topical steroid application in a 3-month-old female: A case report" by Milana-Martinez JK et al (2018). The case have emphasized the risks related to abuse of steroid-containing preparations and the importance of education to prevent catastrophic outcomes of inappropriate steroid use. [9]

Lastly, the Food and Drug Administration Philippines have recently published an advisory to the public on November, 2019 due to the use of products widely available and sold in the internet and unlicensed establishments. [10] The general public was advised to avoid topical medications without proper consultation from dermatologists. [10]

METHODS AND MATERIALS

Study Design

This is a descriptive, prospective study that made use of researcher-made questionnaires reviewed and validated by the Institutional Review Board of Region 1 Medical Center to ensure content relevance, clarity and ethical compliance prior to administration. It is composed of three parts to assess the following: 1) Knowledge on topical corticosteroids, 2) Attitudes on topical corticosteroid application, and 3) Practices on topical corticosteroid.

Study Setting

This study was conducted in Dermatology Outpatient Clinic at a tertiary institution over a period of two months after approval from the institution's Research Committee.

Study Population

The study will utilize purposive sampling technique consisting of all newly registered outpatients seen in the Dermatology Clinic of a tertiary hospital with history of topical corticosteroid (whether plain and/or combination) application who meet the inclusion criteria.

Inclusion Criteria

The study included newly registered dermatology outpatients of ages 18 and above, either male or female, with history of topical corticosteroid (pure and in combination) application in any form and potency continuously for at least 7 days long or intermittently in the past 15 days and beyond with or without previous consultation from another institution were included in this study.

Exclusion Criteria

Patients ages 17 and below and those with no history of topical corticosteroid (pure and in combination) application in any form and potency, or those with history of previous topical corticosteroid application continuously for 6 days or less in duration or intermittent application in the past 14 days or less are excluded from the study.

Former dermatology outpatients for follow up and those not consenting to answering the questionnaire were also excluded from this study

Study Procedure

All eligible dermatology patients were asked for history of previous topical corticosteroid use prior to consult.

A survey about the subject's knowledge on the commonly used topical corticosteroids was performed at least two weeks before the start of the actual study. A list of commonly used topical corticosteroid were identified before letting the actual subjects answer the questionnaire.

All qualified subjects for a period of two months were given a validated questionnaire with 17 questions regarding knowledge, attitude and practices on topical corticosteroid use.

In cases where the participant would not want to continue, he or she may withdraw from the study anytime.

All data collected were organized, coded and analyzed using appropriate descriptive and inferential statistical methods to address the study objectives. Frequencies were presented in tables as fractions and percentages.

In line with observing strict ethical standards during the data collection process, the following were considered:

1. All patients were provided the detailed consent form. Only those with signed forms either by patient themselves or immediate guardians were considered as participants of the study
2. Patients and their guardians were informed that they can back out anytime from the study, those who did backout or those who did not participate still received similar standards of care
3. Gifts and financial assistance were not provided to those who did not participate in this investigation
4. All participating patients were assured that their personal information will not be disclosed nor divulged to anyone, including the management of the institution
5. All data collected were stored securely and will be retained for 5 years and subsequently be deleted in compliance with institutional policy.
6. There are no conflicting interests, nor sources of funds. Financial requirements of this research were solely shouldered by the main proponent.

Ethical/ Biosafety Clearance

The study does not involve handling of hazardous specimen or materials which may post threat to the community, thus this section will not apply.

RESULTS

Out of 52 patients, 50 completed the questionnaires with a 96% response rate (Table 1). The age of the participants ranged from 18-77 years wherein majority of the respondents are 18-27 years of age (n=27, 54%). There were 33 females and 17 male participants. Most respondents are high school graduates (n=33, 66%) who work mostly as housewives (n=25, 24%) followed by students (n=16, 32%). Respondents are all residents of Pangasinan with majority coming from Dagupan City (n=16, 32%).

All 50 participants applied topical corticosteroid prior to consultation with Ketoconazole+Clobetasol Propionate cream (n=36) being the most common and 84% are not aware of its corticosteroid content (Table 2). Among those who applied this cream, most are aged 18-27 years (n=17), and 23 out of 36 users are females and high school graduates, among them 8 are housewives.

KNOWLEDGE

The participants' knowledge on topical corticosteroid use is presented in Table 3. Most common source of information about topical corticosteroids among patients is from social media (34%, n=17) followed by family members (18%, n = 9) and TV/radio advertisements (16%, n=8). 34 of the participants got their topical corticosteroids from their family and friends (68%, n=34), while 12 (24%) got it from the pharmacy. Only 2 patients got their topical corticosteroids from a dermatologist and 6 patients got it from a general physician.

With regards to the purpose of applying topical corticosteroid, most of the participants think it is for itchiness (n=40) followed by redness (n=11), infection (n=4), pimple/acne (n=4), swelling (n=3) and whitening (n=1). Our data also showed that majority of the participants (30%, n=15) believe that there is no side effects of applying topical corticosteroids and 9 (18%) participants have no idea at all. Participants' knowledge on duration of topical corticosteroids application revealed 50% for 1 week followed by 26% for 1 month application. While for the frequency, most patients got the recommended twice daily application of topical corticosteroids with 38%.

ATTITUDES

Participants' attitudes towards the application of topical corticosteroid is illustrated in Table 4. The main reason for application of corticosteroid among majority of the respondents is for itchiness (n=46) followed by redness (n=10). Some answered infection (n=6), whitening (n=2) and hypopigmentation (n=1). On topical corticosteroid safety, 74% of the participants believe it is safe to apply topical corticosteroids (n=37) while 26% (n=13) think it is not safe.

30 (60%) out of 50 respondents are not satisfied with the outcome of topical corticosteroid application. The most common effect observed on the affected areas is both drying of the skin (n=15) and worsening of the skin condition (n=15) followed by peeling (n=13) and darkening of the skin (n=11). Some also experienced lightening of the affected area (n=6), thinning of the skin (n=5) and stretchmarks (n=1) while 2 answered no side effects observed.

PRACTICES

The practices of the participants on topical corticosteroid use is showed on table 5. 36 (72%) out of 50 participants do not seek consult before applying topical corticosteroid and the most common reason behind is because of scarcity of time (36%, n=18) followed by no budget for consult (30%, n=15). The 14 participants who seek consult prior application of topical corticosteroids do it every 2 weeks (n=6) or at least monthly (n=6).

Most respondents applied topical corticosteroids on their feet (n=20),back (n=17), face (n=16), hands (n=15), and chest (n=14). The rest of the respondents answered arms, abdomen, legs, axilla, elbow, knees, genital areas and scalp. Most patients applied the topicals for 4 weeks (28%,n=14) followed by 2 weeks (26%, n=13) as frequent as needed (42%, n=21) and majority of them applied the topical corticosteroids without emollients (63%, n=32) while some have used lotion (n=7), oil (n=5), and petroleum jelly (n=30).

DISCUSSION

Indeed a problem encountered by dermatologists and primary care physicians is the application of self-medicated topical corticosteroids especially in rural areas like in Pangasinan as majority of the participants of this study had been given creams by family members.[3,7] In the study by Soniya et al (2017), they pointed out that majority of their subjects use Clobetasol propionate 0.05% similar with pour result which is Ketoconazole + Clobetasol Propionate cream.

Knowledge

Participants had a poor general understanding of topical corticosteroids. They mostly got information from social media and are either given by family members or bought without prescription thinking that these topicals have no adverse effects when applied to the skin. Unlike the study by Dr. TS Nagesh in India showed that TCs were prescribed by general practitioners in 302 (49.5%) patients, some by friends (n=191,31.2%). This could be modified by providing health education from healthcare workers in social media preferably by dermatologists even if the respondents have good understanding on the duration and frequency of topical corticosteroids application.

Attitudes

Topical corticosteroid use leading to various skin damage is one of the dilemma dermatologists are facing in their practice. Our data showed that majority thinks these topicals are safe to use with itchiness being the major concern. However most of them are not satisfied with the outcome because their skin condition did not improve. Patients should be warned with the use of these topicals since some thinks it could be used for aesthetic purposes. In the study done by Nagesh et al (2016) it has been noted that their subjects were not aware that their problems were due to the long term effects of topical steroids. In some countries like India[(8)], there were reported cases of steroid induced dermatitis due to topical corticosteroid misuse for cosmetic purposes.

Practices

In a study conducted in Jordan involving pharmacy students, it was observed that self medication with topical corticosteroid was very prevalent[(7)] which is similar with the result of this study. This is concerning since most of the respondents applied these topical on different areas of the body that could be very sensitive to corticosteroids without the knowledge on the possible local and systemic effects of topical corticosteroids.

The limitation of this study is the inability to establish a direct association between the health education provided by prescribing physicians and the patients' responses, as the questionnaire was administered only to patients.

CONCLUSION

This is the first study that has used a validated researcher-made questionnaires to explore the knowledge, attitudes and practices of patients on topical corticosteroids use at the dermatology clinic in a tertiary hospital. The results of this study correlates with the previous studies in terms of poor knowledge, attitude and practice of patients regarding topical corticosteroids. The outcome showed that topical corticosteroids were most often used in conditions where it should be avoided leading to various untoward effects.

With topical corticosteroids being used widely as over-the-counter drugs, especially for wrong indications such as fairness, the role of dermatologists and other healthcare providers becomes important. Although some of the respondents are aware of the adverse effects of TCs, there is still a need to strengthen the clinical awareness on the possible local and systemic effects. Dermatologists and other healthcare providers are still the first point of contact for most of the patients hence training them would definitely help to control misuse of topical medications among patients.

References

1. Soniya Meena, Lalit Kumar Gupta, Ashok Kumar Khare, Manisha Balai, Asit Mittal, Sharad Mehta,and Garima Bhatri . Topical Corticosteroids Abuse: A Clinical Study of Cutaneous Adverse Effects. Indian Journal of Dermatology. 2017; 62(6): 675
2. Amina Mahdy, Nadia Hussain, Doaa Al Khalidi, Amira S A Said . Knowledge, Attitude, and Practice Analysis of Corticosteroid Use Among Patients: A Study Based in The United Arab Emirates. National Journal of Physiology, Pharmacy, and Pharmacology. 2017; 7.1234409022017
3. Sarah F. Alsukait, MBBS, Najd M. Alshamlam, MBBS, Zeina Z. Alhalees, MBBS, Sami N. Alsuwaidan, MD, Abdulmajeed M. Alajlan, MD. Topical corticosteroids knowledge, attitudes, and practices of primary care physicians. Saudi Medical Journal. 2017.6.17586
4. Saraswat A, Lahiri K, Chatterjee M, Barua S, Coondoo A, Mittal A, et al. Topical corticosteroid abuse on the face: A prospective, multicenter study of dermatology outpatients. Indian Journal of Dermatology, Venereology and Leprology. 2011;77:160-6.
5. Sinha, Amit & Kar, Sumit & Yadav, Nidhi & Madke, Bhushan. (2016). Prevalence of Topical Steroid Misuse Among Rural Masses. Indian Journal of Dermatology. 61. 119. 10.4103/0019-5154.174081
6. Dr Mohammed Abdullah A Al-Zahrani1 , Professor Shamsun Nahar2 , Dr Sami Abdullah Al-Zahrani3 , Dr Ramzy Ahmed Al-Zahrni3. Knowledge, Attitude, and Practice of Primary Care Physicians Regarding Common Dermatological Disorders in Abha City, Kingdom of Saudi Arabia. International Organization of Scientific Research Journals. 2017; ISSN: 2319-4219
7. Karalikkattil T. Ashique, Feroze Kaliyadan, Shilpa Mohan, Shreya Vijayan, and Dilip Chandrasekhar. Knowledge, Attitudes and Behavior Regarding Topical Corticosteroids in a Sample of Pharmacy Students: A Cross Sectional Survey. Journal of Indian Association of Dermatologists, Venereologists and Leprologists. 2018; 9(6): 432–434
8. Nagesh, T & Akhilesh, A. (2016). Topical Steroid Awareness and Abuse: A Prospective Study among Dermatology Outpatients. Indian Journal of Dermatology. 2016; 61. 618. 10.4103/0019-5154.193666.
9. Milana-Martinez JK, Coo ER, Zabala DA, Tangtatco JA, Lacuesta-Gutierrez MP. A fatal case of staphylococcal scalded skin syndrome associated with iatrogenic Cushing syndrome due to potent topical steroid application in a 3-month-old female: A case report. Journal of Philippine Dermatological Society. 2018; 27(2): 70-73.
10. Food and Drug Administration Philippines. (2019). Incorrect Use of Anti-Fungal Corticosteroid Combination Therapy. FDA Advisory No. 2019-388. Retrieved from https://www.fda.gov.ph/fda-advisory-no-2019-388-incorrect-use-of-anti-fungal-corticosteroid-combination-therapy

Table 1. Demographic characteristics of the participants in a Dermatology Outpatient (N=50)

Age (years)	Frequency (n)	Percent (%)
18-27	27	54
28-37	10	20
38-47	5	10
48-57	6	12
58-67	1	2
68-77	1	2
Sex		
Female	33	66
Male	17	34
Education		
College Graduate	11	22.0
Elementary Graduate	5	10.0
High School Graduate	33	66.0
Post Graduate	1	2.0
Occupation		
barber	1	2.0
driver	1	2.0
farmer	2	4.0
fish deboner	1	2.0
gov't employee	2	4.0
health care worker	3	6.0
houseboy	1	2.0
housewife	12	24.0
law enforcer	1	2.0
sales	1	2.0
sampler	1	2.0
seaman	1	2.0
self employed	2	4.0
student	16	32.0
unemployed	4	8.0
waitress	1	2.0
Address		
Agno	1	2.0
Aguilar	2	4.0
Alaminos	1	2.0
Bayambang	1	2.0
Binmaley	3	6.0
Burgos	1	2.0
Calasiao	6	12.0
Dagupan City	16	32.0
Lingayen	4	8.0
Mangaldan	5	10.0
San Fabian	1	2.0
San Jacinto	1	2.0
Sta. Barbara	4	8.0
Urdaneta City	4	8.0

Table 2. Topical corticosteroid applied prior to consultation

Topical Corticosteroid	Frequency (n)	Percent (%)
BL cream (Ketoconazole+Clobetasol Propionate)	36	72
Triderm (Betamethasone Dipropionate+Gentamicin Sulfate+Clotrimazole)	4	8
Halovate (Halobetasol Propionate)	0	0
Dermovate (Clobetasole Propionate)	9	18
Elica lotion/cream/ointment (Momeatasone Furoate)	6	12
Tricort (Triamcinolone Acetonide)	0	0
Betnovate (Betamethasone Valerate)	4	8
Desowen (Desonide)	0	0
Cortizan (Hydrocortisone)	1	2
Others	2	4
Awareness of Content		
Yes	8	16
No	42	84

Table 3. knowledge on topical corticosteroids use

Q1. Source of topical corticosteroids information

	Frequency (n)	Percent (%)
Social media	17	34.0
TV/Radio advertisements	8	16.0
Posters	2	4.0
Others: Family	9	18.0
Others: Friends	5	10.0
Others: Healthcare workers	7	14.0
Others: Neighbor	2	4.0
Total	50	100.0

Q2. Source of topical corticosteroids

	No	Yes
Dermatologist/ *Espesyalista ng sakit sa balat*	48	2
Doctor but not Dermatologist/ *Doktor na hindi espesyalista ng sakit sa balat*	44	6
Nurse/ *Nars*	50	0
Pharmacist/ *Parmasyutiko*	38	12
Family or friends/ *Kamag-anak o kaibigan*	16	34
Beautician or Salon/ *Mga nagtratrabaho sa salon*	49	1

Q3. Purpose of applying topical corticosteroids

	No	Yes
Whitening/ *Pampaputi*	49	1
Itchiness/ *Pangangati*	10	40
Redness / *Pamumula*	39	11
Infection/ *Inpeksyon*	44	6
Pimples or Acnes/*Tagihawat*	46	4
Swelling/*Pamamaga*	47	3

Q4. Awareness of side effects

	No	Yes
Itchiness/ *Pangangati*	38	12
Burning sensation/ *Paghapdi ng balat*	39	11
Thinning of the skin/ *Pagnipis ng balat*	46	4
Darkening/ *Pangingitim*	46	4
Lightening/ *Pamumuti*	45	5
Infection/ *Inpeksyon*	48	2
None/*Wala*	35	15
I don't know/*Hindi ko alam*	41	9

Q5. Duration of application

	Frequency	Percent
1 week/ *Isang lingo*	25	50.0
2 weeks/ *Dalawang lingo*	8	16.0
1 month/ *Isang buwan*	13	26.0
Others	4	8.0
Total	50	100.0

Q6. Frequency of application

	Frequency	Percent
Once daily/ *Isang beses sa isang araw*	14	28.0
Twice daily/ *Dalawang beses sa isang araw*	19	38.0
As needed/ *Kung kinakailangan*	16	32.0
Others	1	2.0
Total	50	100.0

Table 4. Attitudes on topical corticosteroids use

Q7. Reason for topical corticosteroid application

	No	Yes
Whitening/*Pampaputi*	48	2
Itchiness/ *Pangangati*	4	46
Redness/ *Pamumula*	40	10
Infection/*Inpeksyon*	44	6
Others	49	1

Q8 Safety of topical corticosteroid application

	Frequency (n)	Percent (%)
Yes	37	74.0
No	13	26.0
Total	50	100.0

Q9. Satisfaction with the outcome

	Frequency (n)	Percent (%)
Yes	20	40.0
No	30	60.0
Total	50	100.0

Q10. Effects observed on the applied site

	No	Yes
Lightening of the skin/ *Pamumuti ng balat*	44	6
Darkening of the skin/ *Pangingitim ng balat*	39	11
Dryness/ *Panunuyo ng balat*	35	15
Peeling/ *Pagbabalat*	37	13
Worsening of condition/ *Paglala ng kondisyon*	35	15
Thinning of the skin/ *Pagnipis ng balat*	45	5
Stretchmarks	49	1
No effect	48	2

Table 5. Practices on topical corticosteroid application

Q11. Consult before application of topical corticosteroid

	Frequency (n)	Percent (%)
Yes	14	28.0
No	36	72.0
Total	50	100.0

Q12. Frequency of consult

	Frequency (n)	Percent (%)
No answer	36	72.0
Weekly/ *Linggo-linggo*	2	4.0
Every 2 weeks/ *Kada dalawang linggo*	6	12.0
Monthly/*Buwan-buwan*	6	12.0
Total	50	100.0

Q13. Reason for self medication

	Frequency (n)	Percent (%)
No answer	13	26.0
I do not have time/*Wala akong panahon*	18	36.0
I have no payment/*Wala akong pambayad*	15	30.0
There is no reason to consult a doctor/ *Walang dahilan para pumunta sa doctor*	2	4.0
Others: Due to pandemic	2	4.0
Total	50	100.0

Q14: Areas of application

	No	Yes
Face/*Mukha*	34	16
Chest/*Dibdib*	36	14
Abdomen/*Tiyan*	38	12
Back/*Likod*	33	17
Arms/ *Braso*	37	13
Axilla/*Kili-kili*	44	6
Elbows/*Siko*	44	6
Hands/*Kamay*	35	15
Legs/ *Hita*	38	12
Knees/*Tuhod*	46	4
Feet/ *Paa*	30	20
Genital areas/*Maselang bahagi ng katawan*	48	2
Others: scalp	48	2

Q15. Duration of application

	Frequency (n)	Percent (%)
1 week	10	20.0
2 weeks	13	26.0
3 weeks	1	2.0
4 weeks	14	28.0
8 weeks	5	10.0
12 weeks	4	8.0
16 weeks	1	2.0
24 weeks	2	4.0
Total	50	100.0

Q16. Frequency of application

	Frequency (n)	Percent (%)
Once daily/Isang beses sa isang araw	8	16.0
Twice daily/Dalawang beses sa isang araw	20	40.0
As needed/Kung kinakailangan	21	42.0
Others	1	2.0
Total	50	100.0

Q17. Other products applied with topical corticosteroid

	Frequency (n)	Percent (%)
None/Wala	32	64.0
Lotion/Losyon	7	14.0
Petroleum jelly	3	6.0
Oil/Langis	5	10.0
Others: Katialis	1	2.0
Powder	2	4.0
Total	50	100.0